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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/625,421	07/25/2000	George D. Dumbaugh	1112-1017.1	6645

7590

04/24/2003

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EXAMINER

KING, BRADLEY T

ART UNIT

PAPER NUMBER

3683

DATE MAILED: 04/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/625,421

Applicant(s)

DUMBAUGH, GEORGE D.

Examiner

Bradley T King

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-13 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-13 and 15-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-13, 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dumbaugh et al (US#4149627) in view of Rosenstrom.

Dumbaugh et al discloses an apparatus including: a vibratory apparatus with a bed 111, a plurality of drive springs 114, each drive spring having a first end, a second end and a central axis, the first end of each drive spring being attached to the bed, each drive spring adapted to compress and extend along a line of stroke generally parallel to the central axis of the drive spring, a plurality of inclined stabilizers 115, each stabilizer having a first end, a second end and a longitudinal axis, the first end of each stabilizer being attached to the bed. Dumbaugh et al lack the disclosure of two separate pairs of freewheeling eccentric weights. Rosenstrom teaches a control system and plurality of motor and weight pairs in a vibratory apparatus, where the rotatable weights being freewheeling with respect to one another and adapted to rotate at substantially the same operating speed with respect to one another. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the motors and control system of Rosenstrom in the bed structure of Dumbaugh et al to provide

operation and control through multiple vibratory modules, thereby reducing the cost and increasing the durability of the system.

Regarding claim 6, Dumbaugh et al disclose a counterbalance 116.

Regarding claim 7, Dumbaugh et al disclose isolation springs 117.

Regarding claims 8 and 16, the modification of the spring rates and the motor/weight characteristics is well known in the art. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify either through routine experimentation and optimization to achieve the desired movement.

Regarding claims 17-18, Rosenstrom teach controller 60 for changing the speed of the motors.

Claims 1, 3-13, and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dumbaugh (4149627) in view of Venanzetti.

Dumbaugh et al discloses an apparatus including: a vibratory apparatus with a bed 111, a plurality of drive springs 114, each drive spring having a first end, a second end and a central axis, the first end of each drive spring being attached to the bed, each drive spring adapted to compress and extend along a line of stroke generally parallel to the central axis of the drive spring, a plurality of inclined stabilizers 115, each stabilizer having a first end, a second end and a longitudinal axis, the first end of each stabilizer being attached to the bed. Dumbaugh et al lack the disclosure of two separate pairs of freewheeling eccentric weights. Venanzetti teaches a plurality of motor and weight

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pairs in a vibratory apparatus. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize a plurality of motor and weight pairs as taught by Venanzetti in the bed structure of Dumbaugh et al to reduce the stress in the structure, thereby increasing the durability of the device.

Regarding claim 6, Dumbaugh et al disclose a counterbalance 116.

Regarding claim 7, Dumbaugh et al disclose isolation springs 117.

Regarding claims 8 and 16, the modification of the spring rates and the motor/weight characteristics is well known in the art. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify either through routine experimentation and optimization to achieve the desired movement.

Regarding claims 17-18, Dumbaugh et al teach changing the speed of the motors (column 3, lines 1-17).

Response to Arguments

Applicant's arguments filed 3/28/03 have been fully considered but they are not persuasive.

It is maintained that the weights of Rosentrom are free-wheeling as defined by instant claims and disclosure. While, in operation, the weights may be controlled in a certain manner, the weights themselves are free-wheeling with respect to one another. The weights further lack physical or mechanical connection. The claim language fails to structural define the invention over the prior art. Regarding the limitation requiring the weights to rotate at substantially the same speed, it is maintained that Rosenstrom

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discloses this feature. Rosenstrom varies the control of the motors such that they synchronize. This synchronization requires that the weights rotate at "substantially" the same speed.


Regarding Dumbaugh in view of Venazetti, Venazetti has been relied upon for the basic teaching of multiple eccentric weights to reduce size and load of the motors. Orientation of the weights to achieve a desired stroke is well within the knowledge of one skilled in the art. Dumbaugh teaches the required stroke and bed structure. It is maintained that the modification of Dumbaugh to include multiple weight sets as taught by Venazetti is obvious to one of ordinary skill in the art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley T King whose telephone number is (703) 308-8346. The examiner can normally be reached on 11:00-7:30 M-F.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

BTK
April 21, 2003


JACK LAVINDER
SUPERVISORY PATENT EXAMINER
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